

INFORMA**RESTRICTED**PORT

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the Tatra National Corporation, Czechoslovakia, describing
the engine, body, and mechanical features of the Tatra 87 automobile

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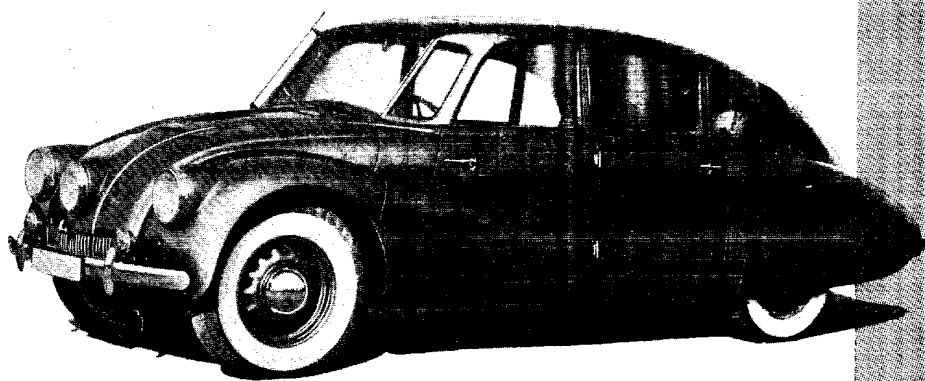
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Tatra 87



Streamlined Eight-cylinder Passengers Car with air cooled
Rear-engine 160 km/H

Engine

housed in the rear - air-cooled - capacity 75 HP - Eight-cylinder - bore 75 mm - pistonstroke 84 mm - volume of cylinders 2958 cm³ - ratio of compression 1 : 5.6 - fivefold settle crankshaft - pistons of light-metal - double-chain camshaft drive - drop valves - forced lubrication - double pitched carburettor with acceleration pump - conveyance of fuel by pump - fuel-tank in front - capacity 55 l - number of revolutions 3500 constant. — **Cooling:** air-cooled by blast-engine - „V" belt drive. — **Electrical installation:** Bosch - tension 12 V - starter with electric clutch - cell ignition - capacity of battery 60 A/h/20/W - 2 main headlights - 1 searchlight - foot switch for the light-absorber. — **Coupling:** dry coupling - single disc clutch. — **Gears:** four gears - first gear 4.7 : 1; second gear 2.95 : 1; third gear 1.56 : 1; top gear 1.04 : 1; reverse 5.92 : 1; silent second third and top gear, synchronised third and top gear, a pair of cycloidal toothed wheels. — **Brakes:** four-wheel-brake under oil-pressure, hand brake act with a cable on the back-wheels. — **Steering:** on the left-hand side by gear rack - coupling rod divided. — **Front-axle:** wheels on springs forming a parallelogram - hydraulic shock-absorber - axle settled in conic bearings. — **Back-axle:** cycloidal toothed bewel wheels - cantilever springs - hydraulic shock-absorber - ratio of gearing 3.15 : 1. **Wheels and tyres:** 5 star-shaped spoke-wheels of steel - tyres 6.50 by 16". — **Car-body:** self-supporting - all steel - streamlined - 4 doors - sliding top. — **Lubrication of chassis:** central lubrication. — **General details:** wheelbase 2800 mm - frond and back track gauge 1250 mm - height above ground 230 mm - length 4740 mm - width 1670 mm height 1500 mm, weight 1370 kg. — **Equipment:** windscreen-wiper - oil telethermometer - speedometer - fuel indicator - watch - box for gloves - rear view mirror adjustable front-seats - sleeping seats - perfect ventilation - heating with hot air - front and rear bumpers - ash-tray - sun-blinds -

steering and ignition ratchet - foot switch for headlights - electric horn - „Vigot” lever - tools and spare parts. — **Driving details:** maximum speed 150—160 km/h - permanent speed on roads 135 km/h, fuel consumption (norm.) 12.2 l - consumption of oil per 100 km approx. 0.25 l. — The streamlined shape and rear-engine belong together. The rear-engine dispenses with long driving-organs. **An overloading of the back-axle can not take place in as much as the air-cooled Tatra engines are of light-metal so that their weight in relation to capacity is almost that of aero-engines.** The streamlined Tatra 87 rear-engine is an Eight-cylinder, **air-cooled engine**, cylinders arranged in two rows — 4 each in the shape of a „V” at an angle of 90°. Each row of cylinders is cooled by a blast-engine which ensures the best working-temperature for the engine at any number of revolutions. The engine is joined to the gearing and the back-axle, thus forming an unit and is cushioned on packs of rubber in the rear of the streamlined car-body. The working of the engine is inaudible inside the car and its quick starting capacity and marvellous acceleration and climbing capacity are among its main features serving as proof of its excellent performance. Another special advantage of the air-cooled Tatra 87 engine is that it may be easily taken out and placed back in its position. The maintaining of a high speed in the open country, quick acceleration in town-traffic and excellent climbing capacity with full load and a sufficient reserve of energy - are features offered by the air-cooled engine of the streamlined Tatra 87 Car.

Body

The high-backed seats adjustable under way, have been adapted to the natural position of the human body and so constructed as to make full use of the width of the motorcar-body, thus providing ample accomodation for 5 passengers. The rear-compartment is spacious enough to allow stretching of feet which is impossible in any other car of this size and represents an other contribution towards the comfort of engine-travelling. The richly upholstered seats offer pleasant repose and with the frontseats folded provide comfortable sleeping accomodation for 2 passengers. The spacious luggage-compartment allows taking a greater number of luggage and is dust-proof and easily accessible from the interior of the car when the backs of the back-seats are folded. To satisfy the friends of coupés, the car has been fitted with a hood which is in perfect keeping with the streamlined shape of the car. When closed, the top is as smooth as that of a limousine and offers no resistance to the wind; when opened, the flow of air passes over the opening without causing any draught of air inside the car.

Tatra

National Corporation - Praha XVI, Karlovuzská 200
CZECHOSLOVAKIA



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